Amendment to the Claims:

1. (Original) A magnetic motor comprising: a first motor assembly comprising: a first bearing surface layer, and a first magnet, fixed with respect to the first bearing surface layer, structured to generate a first magnetic field; and a second motor assembly comprising: a second bearing surface layer, located so that at least a portion of the second bearing surface layer is in contact with at least a portion of the first bearing surface layer, with the second bearing surface layer comprising a material that has relative magnetic permeability of x, wherein x is greater than 2.0; and a second magnet, fixed with respect to the second bearing surface layer, structured to generate a second magnetic field, with the first and second motor assemblies being structured so that forces caused by the interaction of the first and second magnetic fields will cause the first motor assembly and the second motor assembly to move relative to each other, and with the first and second bearing surface layers being in moving contact to at least partially guide the relative motion of the first and second motor assemblies.

2. (Original) The motor of claim 1 wherein the magnetic motor is a high thrust magnetic motor.

3. (Original) The motor of claim 1 wherein x is greater than 100.

4. (Original) The motor of claim 1 wherein: the first motor assembly is a stator; the first bearing surface layer comprises a bushing; the first magnet is an electromagnet, such that the first magnetic field cm be selectively controlled; the second motor assembly comprises a shafl; the second bearing surface layer is located over at least a portion of the shaft; and the second magnet located within the shaft and comprises at least one permanent magnet.

5. (Original) The motor of claim 4 wherein the motor is a doubly salient motor.

6. (Original) The motor of claim 4 wherein the shaft comprises: a plurality of annular, permanent magnets; a plurality of pole pieces, with the magnets and the pole pieces being assembled in an alternating manner; and a sleeve disposed at least partially around the alternating magnets and pole pieces, with the sleeve comprising an outer major surface, and with the second bearing surface layer being located at least partially along the outer major surface of the sleeve.

7. (Original) The motor of claim 1 wherein the second bearing surface layer comprises hard steel.

8. (Original) A magnetic motor comprising: a first motor assembly comprising: a first bearing surface layer, and a first magnet, fixed with respect to the first bearing surface layer, structured to generate a first magnetic field; and a second motor assembly comprising: a second bearing surface layer, located so that at least a portion of the second bearing surface layer is in contact with at least a portion of the first bearing surface layer, and a second magnet, fixed with respect to the second bearing surface layer, structured to generate a second magnetic field, with the first and second motor assemblies being structured so that forces caused by the interaction of the first and second magnetic fields will cause the first motor assembly and the second motor assembly to move relative to each other, and with the first and second bearing surface layers being in moving contact to at least partially guide the

relative motion of the first and second motor assemblies; wherein the second bearing surface layer has a magnetic permeability, saturation characteristic, shape and location so that at least a portion of the second bearing surface layer is magnetically saturated by a magnetic field of the second magnet.

9. (Original) The motor of claim 8 wherein the second bearing surface layer comprises: a saturated portion that is magnetically saturated by the magnetic field of the second magnet; and an unsaturated portion that is not magnetically saturated by the magnetic field of the second magnet.

10. (Original) The motor of claim 9 wherein: the saturated portion comprises a portion of the second bearing surface layer that is located in the vicinity of the second magnet, between the poles of the second magnet; and the unsaturated portion comprises a portion of the second bearing surface layer that is located in the vicinity of the poles of the second magnet.

11. (Original) The motor of claim 8 wherein: the first motor assembly is a stator; the first bearing surface layer comprises a bushing; the first magnet is an electromagnet, such that the first magnetic field can be selectively controlled; the second motor assembly comprises a shaft; the second bearing surface layer is located over at least a portion of the shaft; and the second magnet located within the shaft and comprises at least one permanent magnet.

12. (Original) The motor of claim 11 wherein, during normal operation of the motor, a portion of second bearing surface layer proximate to poles of the at least one permanent

magnet are magnetically unsaturated and a portion of the second bearing surface layer located between the poles is magnetically saturated.

13. (Original) A magnetic motor comprising: a first motor assembly comprising: a first bearing surface layer, and a first magnet, fixed with respect to the first bearing surface layer, structured to generate a first magnetic field; and a second motor assembly comprising: a second bearing surface layer, located so that at least a portion of the second bearing surface layer is in contact with at least a portion of the first bearing surface layer, with the second bearing surface layer comprising a material that has a residual magnetization value of x, wherein x is greater than 500 Gauss; and a second magnet, fixed with respect to the second bearing surface layer, structured to generate a second magnetic field, with the first and second motor assemblies being structured so that forces caused by the interaction of the first and second magnetic fields will cause the first motor assembly and the second motor assembly to move relative to each other, and with the first and second bearing surface layers being in moving contact to at least partially guide the relative motion of the first and second motor assemblies.

14. (Original) The motor of claim 13 wherein x is greater than 1000 Gauss.

15. (Original) The motor of claim 13 wherein: the first motor assembly is a stator; the first bearing surface layer comprises a bushing; the first magnet is an electromagnet, such that the first magnetic field can be selectively controlled; the second motor assembly comprises a shaft; the second bearing surface layer is located over at least a portion of the shaft; and the

second magnet located within the shaft and comprises at least one permanent magnet.

16. (Original) The motor of claim 15 wherein the motor is a doubly salient motor.

17. (Original) The motor of claim 15 wherein the shaft comprises: a plurality of annular, permanent magnets; a plurality of pole pieces, with the magnets of the pole pieces being assembled in an alternating manner; and a sleeve disposed at least partially around the alternating magnets and pole pieces, with the sleeve comprising an outer major surface, and with the second bearing surface layer being located at least partially along the outer major surface of the sleeve.

18. (Original) A magnetic motor comprising: a first motor assembly comprising: a first bearing surface layer, and a first magnet, fixed with respect to the first bearing surface layer, structured to generate a first magnetic field; and a second motor assembly comprising: a second bearing surface layer, located so that at least a portion of the second bearing surface layer is in contact with at least a portion of the first bearing surface layer, with the second bearing surface layer being anisotropic in its magnetic permeability, and a second magnet, fixed with respect to the second bearing surface layer, structured to generate a second magnetic field, with the first and second motor assemblies being structured so that forces caused by the interaction of the first and second magnetic fields will cause the first motor assembly and the second motor assembly to move relative to each other, and with the first and second bearing surface layers being in moving contact to at least partially guide the relative motion of the first and second motor assemblies.

19. (Original) The motor of claim 18 wherein: the first motor assembly is a stator; the first bearing surface layer comprises a bushing; the first magnet is an electromagnet, such that the first magnetic field can be selectively controlled; the second motor assembly comprises an elongated shaft defining a lengthwise direction and a radial direction; the second bearing surface layer is located over at least a portion of the shaft; and the second magnet located within the shaft and comprises at least one permanent magnet.

20. (Canceled)

21. (Previously Amended) The motor of claim 23 wherein y/x is greater than or equal to 1.5.

22. (Original) A method of making a magnetic shaft comprising the steps of: providing a stack comprising a plurality of discrete magnets having an initial stack diameter; providing a sleeve having a magnetic permeability greater than 2.0; and assembling the stack and the sleeve to form a shaft.

23. (Previously Added) A magnetic motor comprising: a first motor assembly comprising: a first bearing surface layer, and a first magnet, fixed with respect to the first bearing surface layer, structured to generate a first magnetic field; and a second motor assembly comprising: a second bearing surface layer, located so that at least a portion of the second bearing surface layer is in contact with at least a portion of the first bearing surface layer, with the second bearing surface layer being anisotropic in its magnetic permeability, and a second magnet,

fixed with respect to the second bearing surface layer, structured to generate a second magnetic field, with the first and second motor assemblies being structured so that forces caused by the interaction of the first and second magnetic fields will cause the first motor assembly and the second motor assembly to move relative to each other, with the first and second bearing surface layers being in moving contact to at least partially guide the relative motion of the first and second motor assemblies;

wherein: the first motor assembly is a stator; the first bearing surface layer comprises a bushing; the first magnet is an electromagnet, such that the first magnetic field can be selectively controlled; the second motor assembly comprises an elongated shaft defining a lengthwise direction and a radial direction; the second bearing surface layer is located over at least a portion of the shaft; and the second magnet located within the shaft and comprises at least one permanent magnet; and

wherein: a magnetic permeability of the second bearing surface layer in the radial direction is y; a magnetic permeability of the second bearing surface layer in the lengthwise direction is x; and y is greater than x.